This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1. (Previously Presented) A process for the preparation of a supported zeolite membrane comprising a zeolite/substrate composite layer, whose zeolite phase exhibits a crystallinity of at least 85%, whereby said process comprises:

a) forming of a gel or a solution that comprises at least one source of silica and water, supplemented with at least one polar organic compound;

b) bringing into contact said gel or said solution with a porous substrate;

c) crystallizing zeolite starting from said gel or said solution; and

d) elimination of residual agents,

characterized in that, in (a), the molar ratio of water to silica in said gel or said solution is 27:1 to 35:1 and wherein in (c), the crystallization is conducted in a single hydrothermal treatment for at least 25 hours at a temperature of 100-250°C.

Claim 2. (Previously Presented) A process according to claim 1, wherein in (a), the molar ratio of the water to the silica in said gel or said solution is between 27:1 and 32:1.

Claim 3. (Previously Presented) A process according to claim 1, wherein in (a), the molar ratio of the water to the silica in said gel or said solution is between 28:1 and 31:1.

Claim 4. (Previously Presented): A process according to claim 1, wherein in (c), the crystallization time is at least 65 hours.

Claim 5. (Previously Presented) A process according to claim 1, wherein the zeolite phase exhibits a crystallinity of at least 90%.

Claim 6. (Previously Presented) A process according to claim 1, wherein in (a), the

molar ratio of the polar organic compound to the silica is between 0.3:1 and 0.6:1.

Claim 7. (Previously Presented) A process according to claim 1, wherein the porous substrate comprises: ceramic based on alumina and/or zirconia and/or titanium oxide, carbon, silica, zeolites, clays, glass or metal.

Claim 8. (Previously Presented): A process according to claim 1 , wherein the zeolite phase is a zeolite MFI-structure.

Claim 9. (Canceled)

Claim 10. (Canceled)

Claim 11. (Canceled)

Claim 12. (Canceled)

Claim 13. (Canceled)

Claim 14. (Canceled)

Claim 15. (Currently Amended) A process according to claim 1, wherein said at least one polar organic compound is selected from the group consisting of organic hydroxides, organic structuring agents containing ammonium or phosphonium ~~iron~~ions and corresponding anions, amines, alcohols, crown ethers and ~~eryands~~cryptands.

Claim 16. (Previously Presented) A process according to claim 1, wherein the water to the silica in said gel or said solution is between 28:1 and 31:1; crystallization is conducted for at least 65 hours; the zeolite phase exhibits a crystallinity of at least 90%; the molar ratio of the polar organic compound to the silica is between 0.3:1 and 0.6:1; and the zeolite phase is a zeolite

having MFI-structure.

Claim 17. (Canceled)

Claim 18. (Previously Presented): A process according to claim 1, wherein crystallization is conducted at a temperature of 150-210°C.

Claim 19. (Previously Presented): A process according to claim 4, wherein crystallization is conducted at a temperature of 150-210°C.

Claim 20. (Canceled)

Claim 21. (Canceled)

Claim 22. (Canceled)

Claim 23. (Previously Presented) A process according to claim 1, wherein the zeolite membrane has a thickness of less than 0.5μm.